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HySenS data exploitation for urban land cover analysis

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Abstract

This paper addresses the use of HySenS airborne hyperspectral data for environmental urban monitoring. It is known that hyperspectral data can help to characterize some of the relations between soil composition, vegetation characteristics, and natural/artificial materials in urbanized areas. During the project we collected DAIS and ROSIS data over the urban test area of Pavia, Northern Italy, though due to a late delivery of ROSIS data only DAIS data was used in this work. Here we show results referring to an accurate characterization and classification of land cover/use, using different supervised approaches, exploiting spectral as well as spatial information. We demonstrate the possibility to extract from the hyperspectral data information which is very useful for environmental characterization of urban areas.

Keywords

hyperspectral remote sensing;urban land use;vegetation distribution;classification

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DOI: https://doi.org/10.4401/ag-3160

Published by INGV, Istituto Nazionale di Geofisica e Vulcanologia - **ISSN:** 2037-416X

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